

## Case Study

### QUICK FACTS

**Industry/Solution:**

- Financial Services

**Platform/File System:**

- Microsoft Windows, IBM AIX and Sun Solaris

**Applications:**

- Microsoft Windows Server
- Sybase
- Oracle
- Microsoft SQL
- VMware vSphere ESX4
- Customized fund administration and trading systems

**Partner Hardware:**

- Hitachi 9990V
- EMC CLARiiON CX 120 and CX 480
- IBM, Sun and Exabyte storage libraries

**Challenges:**

- Aggressive business growth led to 11-hour backup window
- Disparate backup software caused administrative challenges
- Tape-based DR recovery was slow and complex
- Restores from tape took 15 hours; database refreshes took two days
- Inefficient use of existing SAN storage
- Hardware-based deduplication didn't scale well, which led to concerns about excessive costs and additional management overhead

**Solution:**

- CommVault Simpana software with Backup & Recovery, Deduplication, Archive for Microsoft Exchange and Replication

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## CI Investments Achieves a Higher Return on Disaster Recovery Preparedness by Standardizing on CommVault® Simpana® Software

### Customer Profile

CI Investments Inc. is one of Canada's largest investment management companies with a diversified portfolio of investment products and services. As a subsidiary of CI Financial Corp., an independent Canadian-owned wealth management firm with approximately \$94 billion in fee-earning assets, the firm embraces business best practices to enhance investor protection, ensure excellent customer service and comply with all Canadian regulations.

To that end, the Toronto-based company has made major strides in elevating its disaster recovery capabilities to accommodate rapid business growth and expedite data access. As a result, CI Investments has dramatically boosted business continuity, improved operational efficiencies and lowered storage-related costs. Additionally, the company has created a flexible, reliable foundation for enterprise data management that can scale easily and quickly to keep pace with ever-increasing data protection, discovery and compliance demands.

According to Terry Tick, vice president of infrastructure services for CI Investments, CommVault plays a pivotal role in helping the company meet its overarching data management goals. "With Simpana software, we've streamlined business processes so we can better allocate resources while taking business continuity to a whole new level," he says. "Along the way, we've driven down disaster recovery costs while delivering unparalleled customer service."

### Data Management Environment

A core team of 30 specialists within the 220-person IT department keeps close tabs on CI Investments' disaster recovery and data protection initiatives. The charter of this group is to ensure that the approximately 1,700 employees have uninterrupted access to e-mail and all the crucial data they need to perform their jobs.

In doing so, the team oversees mission-critical Sybase, Oracle and SQL databases that drive essential fund administration and trading systems. They also manage about 250 file servers running Microsoft Windows, IBM AIX and Sun Solaris, with about half of the Windows and all of the IBM AIX servers operating as virtualized servers. The SUN servers are logical domains running on the SUN T5240 frames used mainly as Weblogic application servers. The IBM servers are used for either Application or Database as required. Additionally, CI Investments supports 135 TBs of near-line data storage residing on Hitachi Data Systems Universal Storage Platform (Sun StorageTek 990V) along with 12TBs of offline storage on a blend of EMC disk arrays as well as IBM, Sun and Exabyte tape libraries.

Over the past few years, CI Investments has experienced significant data spikes, due to organic business growth and extensive quality assurance efforts. In fact, a major surge in growth stretched the nightly window to 11 hours. "It quickly became apparent that we needed a much more efficient method for performing incremental backups each night," notes Brian D'Souza, manager of UNIX infrastructure for CI Investments. "We also ran into administrative challenges because we lacked a uniform backup system across our enterprise."

## QUICK FACTS (continued)

### Benefits:

- Standardization on Simpana software has decreased the backup window by 40 percent; full backups now take six hours.
- Simpana software's embedded deduplication is meeting projections to reduce storage requirements by 50 percent, for an estimated savings of \$288,000 in media and offsite storage costs over a four-year period.
- Simpana Replication has enabled elimination of daily backup tapes, resulting in a 25 percent savings in tape storage costs, with a projected savings of \$433,000 over four years.
- Simpana Archive has allowed moving Exchange data onto secondary storage at a 30 percent savings over tier 1 SAN costs, which is estimated to save \$480,000 over four years.
- In addition to a total estimated savings of more than \$1 million, CI Investments has taken advantage of Simpana software's scalability, flexibility and ease of use to elevate disaster recovery preparedness and enterprise data management.

### The Strain of Separate Product Silos

CI Investments grappled with multiple backup platforms as dispersed offices maintained separate backup software, which led to numerous management problems and inefficiencies. "Dealing with three disparate products created a lot of performance problems and additional administration, so standardizing on one enterprise-class solution was an important first step in improving our data protection foundation," D'Souza added.

In reviewing options, CI Investments took a close look at its existing backup software vendors, which included Symantec NetBackup, CA ARCserve and IBM Tivoli Storage Manager. CI Investments next sized up the shortcomings of its existing approach to backups and disaster recovery, which was slow and complex. Aside from the increasing backup window, the team struggled with its practice of recovering data from tape, which typically took more than 15 hours to manage all the logistics. Equally problematic was the inordinate amount of time allocated for database refreshes, which could take up to two days.

"Our previous method of refreshing or reloading data for test and development purposes took anywhere from 1-2 days, since our backups were primarily on tape. When tapes are offsite it can take time to bring them back and read them off onto disk, and only then does the recovery start. We wanted software that could better manage this backup and recovery process, leveraging disk rather than tape for daily backups. That way, the data we need for most refreshes would be more readily available and we'd also avoid the time-consuming task of locating and reading from the tape medium," Tick explains.

Additionally, the team determined that inefficiencies with its existing SAN storage had led to ineffective storage utilization. "Eliminating separate product silos topped our list by replacing them with a full-featured solution that supported backup, recovery and replication capabilities," adds Tick. "We also

decided that deduplication would help reduce redundant data and increase back-end storage efficiencies."

### Calculating the Benefits of Integrated Dedupe, Replication and Archive

For CI Investments, the best course of action for improving disaster recovery and optimizing storage utilization was determining the most efficient way to leverage advanced capabilities, such as deduplication, replication and archiving. Starting with deduplication, the team considered a hardware-based approach, which would take advantage of specialized appliances from NetApp and IBM. "We wanted a simple-to-manage deduplication solution that would scale easily and seamlessly," recalls Tick. "The overarching concern with hardware-based dedupe was that scalability meant adding more appliances, which we felt would cost too much in the long run."

In contrast, the team was favorably impressed with CommVault's software-based approach, which embedded deduplication into its Simpana software platform. "CommVault's embedded dedupe feature works across all data types, sources and platforms without the same limitations as dedupe appliances," D'Souza explains. "With CommVault's hardware-agnostic solution, scaling would be more affordable since we could add commodity hardware as our data grew without being tied to a dedicated and expensive appliance."

Another plus in CommVault's favor was the fact that deduplication is integrated within the company's Simpana software so dedupe functionality performs as part of an end-to-end backup and archive solution. Because Simpana software's embedded deduplication reduces data end-to-end during both the backup and transfer processes, it reduces backup windows and network bandwidth requirements. CommVault's dedupe feature also works across both backups and archive data, which are managed seamlessly as part of the company's

Singular Information Management® approach. "The closer we looked at Simpana software, it became clear that we could take advantage of a single platform to deal with rapid business growth as well as facilitate fast data recovery without overburdening our infrastructure," says Tick.

Together, Tick and D'Souza evaluated other Simpana software functionality, including replication for consolidating and expediting remote branch backups. In particular, they were eager to centralize remote office protection and slash tape management at the company's multiple locations. "Our goal was to eliminate daily tape backups as it had become an administrative hassle," says D'Souza. "Whenever possible, we wanted recover data from disk as part of our strengthened DR plan."

Tick noted an additional part of the plan was the decision to include a data archiving capability to better control the growth and costs of storing Microsoft Exchange data for the Exchange e-mail servers, as another important objective for the company was migrating less-critical, non-transactional data from tier 1 to less expensive tier 2 storage. "With archiving, we could implement tiered storage policies while also improving our ability to respond efficiently and effectively to both recovery and eDiscovery actions."

With Simpana software, CI Investments was able to find all the required functionality in one overarching product architecture that could be managed centrally. "CommVault Simpana software's flexibility, scalability and ease of use combined to clinch the deal," says Tick. "We also were able to project a 12-to-18 month ROI using Simpana software, which enabled us to build a compelling business case for standardizing on CommVault technology."

## **Simpana Software Maximizes Technology ROI**

In deploying Simpana software, CI Investments has been able to take its disaster recovery capabilities to the next level while lowering costs and boosting efficiencies. First, CommVault's Simpana software has helped CI Investments reduce its nightly backup window by 40 percent. Meanwhile, the time to perform data refreshes was slashed from 24 hours to just two and the team anticipates being able to recover data from disk in less than two hours, which is a major improvement.

The ability to centralize all backup operations also has produced significant gains. "Consolidating and automating backups with Simpana software is huge for us," D'Souza comments. "We no longer have to deal with multiple software products or manage separate contracts all over the country. We're also cutting off backups to tape, which is producing offsite storage efficiencies and lowering costs as anticipated."

Early returns from the dedupe efforts are meeting projections, so the team expects to reduce storage requirements by up to 50 percent. As a result, CI Investment is on target to save a projected \$288,000 in media and offsite storage costs over a four-year period.

To ensure the highest levels of protection, data is compressed, deduplicated and then encrypted before being replicated to a central site, making it easy to create disaster recovery copies over the company's WAN. By relying on disk-based backups and replication, CI Investments has eliminated daily backups to tape, resulting in a 25 percent savings in tape storage costs, with a projected savings of \$433,000 over the same four-year period.

The company also is leveraging archiving to migrate older, infrequently accessed data onto secondary storage at a 30 percent savings over tier 1 SAN costs, which the company estimates will save \$480,000 over four years. "The Simpana software archive module is enabling another great data reduction strategy, but it's also helping us improve overall information management so we can address data retention and information lifecycle issues more effectively," adds D'Souza.

CI Investments plans to take advantage of Simpana software's archive module to enhance both e-mail preservation and policy-based retention. "With CommVault technology, we also can ease the search and discovery of all Exchange data as part of a plan to reinforce compliance, audit and eDiscovery capabilities," says D'Souza. Plans also are underway to further leverage Simpana software's virtualization support and its Universal Virtual Server Agent, to use a variety of simplified yet granular backup and recovery options.

"With Simpana software, we have access to all types of functionality that will continually give us a leg up in increasing efficiencies while reducing costs," concludes Tick. "So far, our total projected savings in storage-related costs over the next four years exceed \$1 million and we're not done yet. We look forward to working with CommVault to reach new heights in DR preparedness and enterprise data management."



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